



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,001	01/21/2005	Walter Gumbrecht	32860-000834/US	1704
30596 7590 03/17/2008 HARNESS, DICKEY & PIERCE, P.L.C. P.O.BOX 8910 RESTON, VA 20195				
EXAMINER				
CROW, ROBERT THOMAS				
ART UNIT		PAPER NUMBER		
1634				
MAIL DATE		DELIVERY MODE		
03/17/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Advisory Action  
Before the Filing of an Appeal Brief**

**Application No.**

10/522,001

**Applicant(s)**

GUMBRECHT ET AL.

**Examiner**

Robert T. Crow

**Art Unit**

1634

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 21 February 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because:  
a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
b) ☐ They raise the issue of new matter (see NOTE below);  
c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.  
NOTE: See *Continuation Sheet*. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None.

Claim(s) objected to: None.

Claim(s) rejected: 1-4, 7 and 9-15.

Claim(s) withdrawn from consideration: 16-27 and 29-31.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See *Continuation Sheet*.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_

13. ☐ Other: \_\_\_\_\_.

/Diana B. Johannsen/  
Primary Examiner, Art Unit 1634

Continuation of 3. NOTE: The amendments filed 21 February 2008 further limit the claims to comprise spot arrays. The previous version of the claims only required a single spot array, whereas the present amendment requires a plurality of spot arrays. This new limitation further narrows the scope of the claims, and thus requires further considerations because the claims now require the plurality of spot arrays. This new limitation has not been previously presented and therefore will not be considered.

Continuation of 11, does NOT place the application in condition for allowance because: Applicant argues on pages 8-9 of the Remarks filed 21 February 2008 that neither Chateau, Chen et al, nor Gordon et al teach the measurements are made from below the carrier, or that Gordon et al teach a carrier.

In response, it is noted that a prior art reference is considered as a whole and for all it stands for. Thus, while the rejections listed below present a modified interpretation of the teachings of the prior art of Gordon et al solely for the purpose of clarity, the rejections of the claims are maintained for the reasons of record. Thus, the claims are still obvious over the prior art as discussed below.

However, Gordon et al teach electrically readable biochips wherein spots of oligonucleotides are attached to an uppermost layer of an electrode (Figures 1-2 and paragraph 0091), wherein electrical contacts for measurements in the form of data and address busses 26, 28, and 30 of Figure 1 (or alternatively, data and address busses 126, 128, and 130 of Figure 4), which are clearly shown in both Figures 1 and 4 as being below the substrate 12, which is the carrier (paragraphs 0085 and 0131), and which have the added advantage of allowing selective chemical activity at specific electrodes on the chip (paragraph 0040). Thus, Gordon et al teach the known technique of using electrically addressable biochips having electrical contact elements for measurements to be carried out from below the carrier.

Thus, as noted in the previous Office Action, it would have been obvious to a person of ordinary skill in the art at the time the claimed invention was made to have modified the method comprising a carrier having an electrode as taught by Chateau in view of Chen et al with the electrically readable biochips having contact elements for measurements that are carried out from below the carrier as taught by Gordon et al with a reasonable expectation of success. The modification would result in a method wherein electrical measurements are carried out from below the carrier via use of the data and address busses, which are on the bottom of the carrier as taught by Gordon et al. The ordinary artisan would have been motivated to make the modification because said modification would have resulted in a method having the added advantage of allowing selective chemical activity at specific electrodes on the chip as explicitly taught by Gordon et al (paragraph 0040). In addition, it would have been obvious to the ordinary artisan that the known technique of using the electrically addressable biochips having electrical contact elements for measurements to be carried out from below the carrier of Gordon et al could have been applied to the method of Chateau in view of Chen et al with predictable results because the biochips and elements of Gordon et al predictably result in a carrier useful having individually addressable electrodes.

Applicant also argues on page 9 of the Remarks that the examiner's motivation is unrelated to the problem suggested by the instant specification.

However, in response to applicant's argument that Gordon et al is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Gordon et al clearly teach the method relates to the reaction of chemicals at the electrodes, and specifically recites nucleic acid hybridization (paragraph 0076), and is thus clearly applicable to biochips.

In addition, in response to applicant's argument that Gordon et al do not address faster analysis, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Further, Gordon et al do, in fact, teach the electrodes of the array are capable of engaging in local scrubbing of the electrode, which has the advantage of providing for enhanced speed of binding (paragraph 0099). Thus, Gordon et al have provided an additional advantage for using the structural arrangement of the electrodes and method of measurements that explicitly addressed the stated goal of the instant Application.

In addition, it is also noted that under the Supreme Court ruling for *KSR Int'l Co. v. Teleflex, Inc* (No 04-1350 (US 30 April 2007) forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness. See *Ex parte Smith* (USPQ2d, slip op. at 20 (Bd. Pat. App. & Interf. June 25, 2007).

The remaining arguments regarding dependent claims 2-3 and 7 on page 9 of the Remarks rely on arguments set forth to address the rejections of independent claim 1 under 35 USC 103(a). Applicant has provided no further arguments not already considered. Since the arguments regarding independent claim 1 were not persuasive, the rejections of the dependent claims are maintained.

/Robert T. Crow/  
Examiner, Art Unit 1634